

BIRAC and WISH Partnership to provide last mile Primary Healthcare Innovations in Rajasthan



Biotechnology Industry Research Assistance Council (BIRAC), in collaboration with the **LEHS-WISH (Wadhvani Initiative for Sustainable Healthcare)**, National Health Mission, Government of Rajasthan launched two BIRAC supported innovations, **SOHUM** and **ATOM** on 4th September 2018, at Hotel Holiday Inn, Jaipur City Centre.

WISH team will be conducting a pilot study to evaluate the clinical effectiveness and cost effectiveness of these innovative devices. With the guidance of National Health Mission, BIRAC-WISH partnership aims to create an impact in the health care environment in the state by making the inaccessible services accessible to the doorsteps of masses. This launch is a part of the larger objective of BIRAC- WISH partnership to introduce new innovations and technology as solutions to the unmet healthcare concerns to make it affordable and accessible till the last mile. The aim of this launch was to address the diseases at the primary health centre level, reducing patient load at the secondary and tertiary centres, thus converting the existing PHC and sub centres to Health & wellness centres delivering all the services listed by the government.

Mr. Naveen Jain, MD-NHM, Rajasthan was the chief guest for the function and both the devices were officially launched in the state by MD-NHM, Rajasthan. BIRAC was represented by Dr. Shirshendu Mukherjee, Mission Director, PMU-BMGF, Dr. Saishyam Narayanan, Dy-Manager- Technical and Mr. Utkarsh Mathur, Manager- Business Development. Mr. Rajesh Ranjan Singh, COO, WISH foundation and Dr. R. K. Srivastava, Senior Advisor Innovations and Dr. Kavita Kachroo, HTA Manager represented WISH foundation along with other field staffs for the state of Rajasthan.

Dr. Mukherjee introduced BIRAC's role in supporting innovations relevant to Indian healthcare ecosystems and about BIRAC-WISH partnerships. Mr. Rajesh Singh talked about how WISH foundation the validation of innovative technologies on test beds. Both the Innovators, Mr. Nitin Sisodia from Sohum Innovations Pvt. Ltd. and Mr. Abhinav from Cardea Labs Pvt. Ltd presented the technology before the media and MD-NHM, describing various aspects of the technologies and how the technology implementation will positively impact people's lives and overall healthcare ecosystem in the state. Mr. Naveen Jain, MD-NHM, Rajasthan discussed the different possibilities for adopting both these technologies, after validation, into the State Health Mission. Specifically, he talked about introducing a deafness stamp on the vaccination card following hearing screening of neonates using Sohum device. Mr. Jain opined that ATOM tele-ECG could be introduced to primary health centre for expert cardiologist tele-consultation from tertiary centres.

Details of the launched innovations:

- **ATOM** (Accurate TeleECG On Mobile) has been developed with medical radioisotope technology from the Bhabha Atomic Research Agency (BARC), clinical inputs from the Department of Cardiology, AIIMS New Delhi and financial support from BIRAC. ATOM provides a clinical quality trace of simultaneously recorded 12 lead ECG signal over Android phone. The data can be viewed in real-time and on the press of a button, the tracing gets saved in a pdf file in the form of a standard 12 lead ECG record. In addition to the standard tracing, a 10 second rhythm tracing of all the 12 leads is also made available normally only in expensive ECG machines. Moreover, to help the doctors identify the axis of the heart, a Vector Cardiogram is also generated on the 3rd page.
- **Sohum** is a novel device and system to screen newborn for hearing loss in resource-poor settings to avoid a preventable disability. It is a compact battery-operated device based on the gold standard brainstem evoked response audiometry and can be used by any ordinary healthcare worker with high accuracy. The device gives automated results and is telemedicine enabled to ensure the patient receives the complete care cycle. The device has been proven in clinical trials and eliminates the use of sedatives besides reducing test duration by lowering time required in preparation & analysis. It is ideal for mass screening, is reusable, and significantly reduces the cost of the procedure.